

CLAIMS

WHAT IS CLAIMED IS:

1. A method of preparing for the repair of a damaged locomotive, the locomotive being one of a fleet of individually unique locomotives, the method comprising:

- providing a database containing as-built parts information
- 5 regarding a plurality of locomotives;
- defining a plurality of repair kits, each repair kit including those parts of a respective locomotive that would have to be replaced to repair damage to the respective locomotive caused by any one of a plurality of predefined collision events involving any one of a plurality of regions of the
- 10 respective locomotive, the repair kits including parts selected from the as-built parts information of the database for the respective locomotive;
- communicating a user's assessment of damage to one of the regions of a selected one of the plurality of locomotives;
- designating a specific repair kit in response to the assessment of
- 15 damage; and
- communicating such designation to the user.

2. The method of claim 1, further comprising:
- collecting all of the parts included in the specific repair kit;
  - 20 transporting all of the parts included in the specific repair kit to a location where the damage to the selected locomotive will be repaired.
3. The method of claim 2, further comprising transporting all of the parts together in a single shipment.

- 25 4. The method of claim 3, further comprising shipping instructions for the repair of the selected locomotive together with all of the parts in a single shipment.

5. The method of claim 1, further comprising providing access to the database via an information network.

6. The method of claim 1, further comprising:  
5 maintaining the database at a service center location;  
providing access to the database via an information network; and  
accessing the database from any one of a plurality of repair centers  
via the information network.

10 7. The method of claim 1, further comprising:  
providing information regarding the availability of parts included in  
the database;  
defining a delivery schedule for the specific repair kit responsive to  
the availability of the parts included in the specific repair kit;  
15 providing the delivery schedule to the user upon the designation of  
the specific repair kit.

8. The method of claim 1, further comprising:  
providing information regarding the price of parts included in the  
20 database;  
defining a price quotation for the specific repair kit responsive to  
the prices of the individual parts included in the specific repair kit;  
providing the price quotation to the user upon the designation of the  
specific repair kit.

9. The method of claim 1, further comprising:  
directing a damaged locomotive to a repair center for repairs;  
providing information regarding damage to the locomotive to the  
user prior to the locomotive arriving at the repair center;
- 5 designating a specific repair kit in response to the information  
regarding damage prior to the locomotive arriving at the repair center.
10. The method of claim 9, further comprising:  
providing pictorial information regarding the damage to the  
selected locomotive prior to the locomotive arriving at the repair center;  
and  
formulating the user's assessment of damage at least in part by  
using the pictorial information.
- 15 11. The method of claim 1, further comprising:  
providing the user with a graphical representation of the one of the  
plurality of locomotives via a graphical user interface;  
enabling the user to communicate the assessment of the damage by  
selecting a region of the locomotive via the graphical user interface.
- 20 12. The method of claim 1, further comprising:  
enabling the user to communicate the assessment of the damage by  
answering a plurality of questions associated with a decision tree leading  
to the specific repair kit.

13. A method of preparing for the repair of a damaged locomotive, the method comprising:
- providing a database containing information regarding a locomotive, the information including a listing of parts of the locomotive;
- 5 defining in the database a plurality of repair kits, each repair kit including those parts of the locomotive that would have to be replaced to repair damage to the locomotive caused by a respective plurality of predefined collision events;
- providing access to the database to allow a user to select a specific
- 10 repair kit from among the plurality of repair kits.

14. The method of claim 13, further comprising:
- allowing the user to order for delivery all of the parts associated with the specific repair kit by ordering the specific repair kit;
- 15 delivering all of the parts associated with the specific repair kit to a locomotive repair location.

15. The method of claim 14, further comprising delivering all of the parts in a single shipment.

- 20 16. The method of claim 13, further comprising:
- providing access to the database via a graphical user interface;
- providing a visual representation of the locomotive via the graphical user interface, the visual representation including an indication of a section of the locomotive associated with each respective repair kit;
- 25 allowing the user to select the specific repair kit by selecting one of the sections of the locomotive via the graphical user interface.

17. The method of claim 14, further comprising delivering a repair procedure for installing the parts associated with the specific repair kit to the locomotive repair location.

5        18. The method of claim 13, further comprising providing cost information associated with the specific repair kit to the user.

19. The method of claim 13, further comprising providing delivery information associated with the specific repair kit to the user.

10      20. The method of claim 13, further comprising:  
                identifying an upgrade to the locomotive associated with at least one of the plurality of repair kits;  
                presenting information associated with the upgrade to the user in response to the user selecting a specific repair kit.

15      21. The method of claim 13, further comprising:  
                providing access to the database to the user via an information network;  
                providing at least one of cost information and delivery information associated with the specific repair kit to the user via the information network.

20      22. The method of claim 13, further comprising:  
                providing information concerning collision damage to the locomotive to a repair center prior to the locomotive arriving at the repair center;  
                selecting a specific repair kit in response to the information concerning collision damage.

23. The method of claim 22, further comprising providing the information concerning collision damage from on-board the locomotive.

24. The method of claim 23, further comprising providing
- 5 pictorial information concerning collision damage via a wireless communication link.

25. A method of preparing for the repair of a damaged locomotive, the method comprising:

- 10 assessing the extent of damage to a locomotive;
- using a database containing as-built parts information regarding the locomotive to develop a list of parts necessary to repair the damage to the locomotive;
- 15 accumulating the parts identified in the list of parts together to form a repair kit for repairing the damage to the locomotive; and
- shipping the repair kit as a unit to a location where the locomotive will be repaired.

26. The method of claim 25, further comprising including in the

20 repair kit instructions for installing parts included in the repair kit.

27. The method of claim 25, further comprising:
- communicating pictorial information regarding the extent of the damage prior to the locomotive arriving at the location where the
- 25 locomotive will be repaired; and
- using the pictorial information for assessing the extent of the damage.

28. A system for preparing for the repair of a damaged locomotive, the system comprising:

a parts database containing information regarding the as-built parts contained in a locomotive;

5 a plurality of repair kits defined in the parts database, each repair kit containing a grouping of all of the parts that would have to be replaced to repair damage to the locomotive caused by a respective plurality of predefined collision events;

10 a data port for accessing the database to select a specific repair kit  
in response to actual damage to the locomotive.

29. The system of claim 28, further comprising a repair kit containing all of the parts identified in a repair kit selected by a user, the repair kit collected together in a condition for being transported as a single  
15 shipment.

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